
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G

(Rule 13d-102)

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1
(b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO § 240.13d-2**

Molecular Templates, Inc.

(Name of Issuer)

Common Stock
(Title of Class of Securities)

885807206
(CUSIP Number)

December 31, 2017
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS Excel Ventures II GP, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 1,497,696 (2)
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 1,497,696 (2)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,497,696 (2)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 5.57% (3)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) 00	

- (1) This statement on Schedule 13G is filed by Excel Ventures II GP, LLC (“Excel GP”), Excel Venture Fund II, L.P. (“Excel”), Frederick R. Blume (“Blume”), Steven R. Gullans (“Gullans”), Juan Enriquez (“Enriquez”) and Caleb Winder (“Winder” and, together with each of the foregoing, the “Reporting Persons”). The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) Includes 1,473,559 shares of Common Stock and an immediately exercisable warrant to purchase 24,137 shares held by Excel as of December 31, 2017.
- (3) This percentage is calculated based upon 26,895,230 shares of the Common Stock outstanding as of November 8, 2017 as set forth in the Issuer’s most recent Form 10-Q for the period ending September 30, 2017, filed with the Securities and Exchange Commission on November 14, 2017.

1	NAMES OF REPORTING PERSONS Excel Venture Fund II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
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1	NAMES OF REPORTING PERSONS Frederick R. Blume	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
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1	NAMES OF REPORTING PERSONS Steven R. Gullans	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
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1	NAMES OF REPORTING PERSONS Juan Enriquez	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
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- (3) This percentage is calculated based upon 26,895,230 shares of the Common Stock outstanding as of November 8, 2017 as set forth in the Issuer's most recent Form 10-Q for the period ending September 30, 2017, filed with the Securities and Exchange Commission on November 14, 2017.

1	NAMES OF REPORTING PERSONS Caleb Winder	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
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12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

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- (2) Includes 1,473,559 shares of Common Stock and an immediately exercisable warrant to purchase 24,137 shares held by Excel as of December 31, 2017.
- (3) This percentage is calculated based upon 26,895,230 shares of the Common Stock outstanding as of November 8, 2017 as set forth in the Issuer's most recent Form 10-Q for the period ending September 30, 2017, filed with the Securities and Exchange Commission on November 14, 2017.

Item 1(a) Name of Issuer:

Molecular Templates, Inc.

Item 1(b) Address of issuer's principal executive offices:9301 Amberglen Blvd., Suite 100
Austin, TX 78729**Items 2(a) Name of Reporting Persons filing:**Excel Ventures II GP, LLC ("Excel GP")
Excel Venture Fund II, L.P. ("Excel")
Frederick R. Blume ("Blume")
Steven R. Gullans ("Gullans")
Juan Enriquez ("Enriquez")
Caleb Winder ("Winder")**Item 2(b) Address or principal business office or, if none, residence:**Prudential Tower
800 Boylston Street, Suite 2825
Boston, MA 02199**Item 2(c) Citizenship:**

<u>Name</u>	<u>Citizenship or Place of Organization</u>
Excel GP	Delaware Limited Liability Company
Excel	Delaware Limited Partnership
Blume	United States of America
Gullans	United States of America
Enriquez	United States of America
Winder	United States of America

Item 2(d) Title of class of securities:

Common Stock

Item 2(e) CUSIP Number:

885807206

Item 3 If this statement is filed pursuant to §§ 240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filings is a:

Not applicable.

Item 4 Ownership

The following information with respect to the ownership of Common Stock of the Issuer by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2017:

Reporting Persons	Shares of Common Stock Held Directly (1)	Sole Voting Power (1)	Shared Voting Power (1)	Sole Dispositive Power (1)	Shared Dispositive Power (1)	Beneficial Ownership (1)	Percentage of Class (1)
Excel GP	0	0	1,497,696	0	1,497,696	1,497,696	5.57%
Excel(2)	1,497,696	0	1,497,696	0	1,497,696	1,497,696	5.57%
Blume	0	0	1,497,696	0	1,497,696	1,497,696	5.57%
Gullans	0	0	1,497,696	0	1,497,696	1,497,696	5.57%
Enriquez	0	0	1,497,696	0	1,497,696	1,497,696	5.57%
Winder	0	0	1,497,696	0	1,497,696	1,497,696	5.57%

- (1) This percentage is calculated based upon 26,895,230 shares of the Common Stock outstanding as of November 8, 2017 as set forth in the Issuer's most recent Form 10-Q for the period ending September 30, 2017, filed with the Securities and Exchange Commission on November 14, 2017.
- (2) Excel Venture Fund II, L.P. owns 1,473,559 shares and an immediately exercisable warrant to purchase 24,137 shares.

Item 5 Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Item 6 Ownership of More than Five Percent on Behalf of Another Person

Not applicable

Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person

Not applicable.

Item 8 Identification and Classification of Members of the Group

Not applicable.

Item 9 Notice of Dissolution of Group

Not applicable.

Item 10 Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purposes or effect.

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 12, 2018

EXCEL VENTURE FUND II, L.P.
BY: EXCEL VENTURES II GP, LLC
ITS: GENERAL PARTNER

By: /s/ Caleb Winder
Manager

EXCEL VENTURES II GP, LLC

/s/ Caleb Winder
Manager

/s/ Frederick R. Blume
Frederick R. Blume

/s/ Steven R. Gullans
Steven R. Gullans

/s/ Juan Enriquez
Juan Enriquez

/s/ Caleb Winder
Caleb Winder

Exhibit(s):

Exhibit 99.1: Joint Filing Statement

AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of Common Stock of Molecular Templates, Inc.

Dated: February 12, 2018

EXCEL VENTURE FUND II, L.P.
BY: EXCEL VENTURES II GP, LLC
ITS: GENERAL PARTNER

By: /s/ Caleb Winder
Manager

EXCEL VENTURES II GP, LLC

/s/ Caleb Winder
Manager

/s/ Frederick R. Blume
Frederick R. Blume

/s/ Steven R. Gullans
Steven R. Gullans

/s/ Juan Enriquez
Juan Enriquez

/s/ Caleb Winder
Caleb Winder